

ABSTRACT

Amphiphilic telechelics incorporating polyhedraloligosilsesquioxane (POSS) synthesized by direct urethane linkage between the diol end groups of polyethylene glycol (PEG) homopolymers and the monoisocyanate group of POSS macromers. The hydrophobicity of the amphiphilic telechelics can be varied by using PEG homopolymers of increasing MW, providing for control over molecular architecture by hydrophilic/hydrophobic balance. Methods for synthesizing the amphiphilic telechelics and their use as surfactants, thickening agents, additives to plastic such as PMMA' (Plexiglass), epoxyadhesives for improving their properties are also disclosed.

.StmLib1:1021643.1 07/16/03